

ABSTRACT OF THE DISCLOSURE

An electrical machine, such as a three phase current generator and a starter generator has a stator housing, a shaft supported in the stator housing and carrying an impeller, a stator plate pack mounted on the stator housing and surrounding the impeller, a stator and a rotor chamber and a space which is separated from the chambers in a cooling medium tight manner, a cooling medium pump which is driven by a shaft for heating a cooling medium, the cooling medium pump being arranged in the space, a magnetic coupling through which the cooling medium pump is drivable and which transmits a driving moment from the shaft to the cooling medium pump, the magnetic coupling having a driving part and a driven part which are separated from one another by a magnetically inactive and electrically poorly conductive wall.